

Books of the Week

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BOTANY AND OUR SOCIAL ECONOMY—Alexander C. Martin—*National Wildlife Federation*, 30 p., illus., paper, 10 cents. Pointing out our dependence on plants.

THE CHEMISTRY OF ACETYLENE AND RELATED COMPOUNDS—Ernst David Bergmann—*Interscience*, 108 p., \$3.00. Material presented at a seminar on acetylene chemistry at the Polytechnic Institute of Brooklyn in 1946.

THE DEVELOPMENT OF THEORETICAL ELECTROCHEMISTRY—Raymond M. Fuoss—*Pennsylvania State College*, 24 p., paper, \$2.00. Twenty-Second annual Priestley Lecture.

EMPIRE'S CHILDREN: THE PEOPLE OF TZINTZUNTZAN—George M. Foster assisted by Gabriel Ospina—*Smithsonian Institution*, 297 p., 16 pl. One of a series of monographs describing results of joint field studies of the Institute of Social Anthropology and the Escuela Nacional de Antropología de Mexico.

GEOLOGY AND GROUND-WATER RESOURCES OF SEWARD COUNTY, KANSAS—Frank E. Byrne and Thad G. McLaughlin—*University of Kansas*, 140 p., illus., paper, 25 cents.

THE LABOR FORCE IN THE UNITED STATES, 1890-1960—John D. Durand—*Social Science Research Council*, 284 p., \$2.50. An interesting statistical study with serious predictions for the future.

LIVE LONG AND LIVE IT—C. Ward Crampton—*Public Affairs Committee*, 32 p., illus., paper, 20 cents. Advice for those over forty on how to avoid being older than their years.

MICROWAVE MAGNETRONS—George B. Collins—*McGraw-Hill*, 806 p., illus., \$9.00. All the information necessary to make a magnetron, important component in radar systems.

MINERAL RESOURCES OF COLORADO—John W. Vanderwilt—*Colorado State Mineral Resources Board*, 547 p., illus., \$2.50. From a state wealthy in metals, non-metal minerals, and fuels.

NURSING PATHOLOGY—Raymond H. Goodale—*Saunders*, 416 p., illus., \$3.00. To give the nurse the necessary background so that she can provide intelligent care.

ORIGIN OF GRANITE—H. H. Read, A. F. Buddington, F. F. Grout, G. E. Goodspeed and N. L. Bowen—*Geological Society of America*, 139 p., illus., \$1.80. Papers presented at a conference at the meeting of the Geological Society of America in 1947.

PHYSICS TODAY—Vol. 1, No. 1, May 1948—*American Institute of Physics*, \$4 year. First issue of a new journal being sent to all members. Dr. Vannevar Bush writes on "Trends in American Science."

PHYSIOLOGY OF MUSCULAR ACTIVITY—Edward C. Schneider and Peter V. Karpovich—*Saunders*, 3rd ed., 346 p., illus., \$3.75. Adapted primarily for students of physical education.

QUANTITATIVE ANALYSIS—Willis Conway Pierce and Edward Lauth Haensch—*Wiley*, 3d ed., 520 p., \$3.75. A first-year

textbook almost entirely rewritten to bring it up to date.

SEX VARIANTS: A Study of Homosexual Patterns—George W. Henry—*Hoerber*, one-vol. ed., 1130 p., illus., \$8.00. Results of a research program of importance to those concerned with the medical, legal or social problems of homosexuality.

TEMPLES IN YUCATAN: A Camera Chronicle of Chichén Itzá—Laura Gilpin—*Hastings House*, 124 p., illus., \$5.00. A book of beautiful photographs showing ancient ruins of the Maya together with glimpses of modern life.

TEXTILE TESTING IN GERMANY—Herbert F. Schiefer, Lyman Fourn, and Richard T. Kropf—*Textile Research Institute*, 57 p., illus., paper, \$3.50. Prepared from information obtained in 1945 by the Technical Industrial Intelligence Committee of the U. S. Army.

THESE RIGHTS ARE OURS TO KEEP—Jerome

PHYSICS

Meson Trails Captured

Use new photographic emulsion containing eight times as much silver bromide and also boron to magnify tracks and keep them from fading.

➤ A NEW and special kind of photographic plate is being used to take pictures of mesons, small cosmic ray particles.

The new Ilford photo emulsion has been developed to photograph the trail of these elusive particles in the laboratory of Dr. C. F. Powell. This emulsion contains eight times as much silver bromide as older emulsions in order to magnify the path of a particle on the photographic plate. It also is loaded with boron, which prevents the tracks left by the particle from fading and makes the emulsion less sensitive to light.

Since pre-war days it has been possible to take pictures of protons, deuterons, alpha particles and fission fragments on photographic emulsions, but until recently it has been very difficult to distinguish between the tracks left by the different particles. In addition, very light particles could not be traced because they did not have enough energy to leave much of a trail in the emulsion.

Since cosmic rays are believed by scientists to come from outside the atmosphere of the earth, perhaps from the stars, plates to catch the traces of these rays in the form of mesons are exposed

on the tops of mountains. Only when the meson actually ends up in the emulsion can one be sure that the trail in the emulsion is due to a meson and not any other particle. The plates after exposure are examined under strong microscopes by the scientists. By studying the plates they are able to determine the mass of the meson, evidences of nuclear degeneration and other facts which increase our knowledge of the hitherto little known cosmic rays.

UNITS IN PERSONAL HEALTH AND HUMAN RELATIONS—Lillian L. Biester, William Griffiths and N. O. Pearce—*University of Minnesota Press*, 267 p., \$3.50. Teaching material for sex education.

VOLUNTARY MEDICAL CARE INSURANCE IN THE UNITED STATES—Franz Goldmann—*Columbia University Press*, 228 p., \$3.00. Background material on a very timely question.

WIDENING HORIZONS IN MEDICAL EDUCATION: A Study of the Teaching of Social and Environmental Factors in Medicine, 1945-1946—Joint Committee of the Association of American Medical Colleges and the American Association of Medical Social Workers—*Commonwealth Fund*, 228 p., \$2.75.

YEARBOOK OF FOOD AND AGRICULTURAL STATISTICS, 1947—*Food and Agriculture Organization, (Columbia University Press)* 261 p., paper, \$2.50. Up to date figures on world agricultural production and livestock numbers. Has table of contents in English, French, Spanish and Chinese.

Science News Letter, May 29, 1948

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Plastic Coasters and Tiles

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